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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,174	04/01/2004	Jung-Chiao Chang	2019-0243PUS1	7375
2292	7590	12/05/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			CHEN, SOPHIA S	
PO BOX 747			ART UNIT	
FALLS CHURCH, VA 22040-0747			PAPER NUMBER	
			2852	

DATE MAILED: 12/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AKC

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/814,174	CHANG ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sophia S. Chen	2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 is/are allowed.
- 6) ☒ Claim(s) 9-13 is/are rejected.
- 7) ☒ Claim(s) 5-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                              |                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/13/04</u> . | 6) <input type="checkbox"/> Other: ____                                                |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "photo sensor" (claim 8) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claims 5-8 and 10 are objected to because of the following informalities:

- a. Claim 5, line 5, "said light-emitting diodes" should be "said light-emitting device" to have the proper antecedent basis.
- b. Claim 5, line 8, there is no antecedent basis for "the integrated light source". The Examiner believes "the integrated light source" should be "the cold cathode fluorescent lamp".
- c. Claim 5, last line, "the document" should be "a document".
- d. Claim 6 is identical to claim 2.
- e. Claim 7 is identical to claim 3.
- f. Claim 8, line 1, "of claim 1" should be "of claim 5".
- g. Claim 8, line 2, "the integrated light source" should be "the cold cathode fluorescent lamp".
- h. Claim 10, line 2, "the light-emitting device is a light-emitting diode" should be "the light-emitting devices are light-emitting diodes" since claim 9 discloses the light-emitting devices.

Appropriate correction is required.

***Claim Rejections – 35 USC §103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuan et al. (US Pat. Pub. No. US 2004/0233481 A1) in view of Kobayashi et al. (JP 04-071158 A)

Kuan et al. discloses an apparatus for reducing a warm-up time of a lamp, comprising: an image sensor module 23; a cold cathode fluorescent lamp 24 provided on one side of the image sensor module 23; and a heating light source 26 provided on the other side of the image sensor module 23 to serve as an auxiliary light source for the cold cathode fluorescent lamp 24 when turned on simultaneously with the cold cathode fluorescent lamp 24 to reduce a start-up time of a scanner 20 (paragraphs [0020] and [0029]; Figure 7).

Kuan et al. differs from the instant claimed invention in not disclosing the auxiliary light source is a plurality of light-emitting diodes.

Kobayashi et al. discloses a device comprising a cold cathode fluorescent lamp 4; a plurality of light-emitting diodes (LED) 8 being served as an auxiliary light source for the cold cathode fluorescent lamp 4 (abstract and Figure 3); and the LED 8 turned on

simultaneously with the cold cathode fluorescent lamp 4 to reduce a start-up time (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the light-emitting diodes as taught by Kobayashi et al. in place of the auxiliary (heating) light source of Kuan et al. because of the same functionality for reducing the start-up time.

6. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuan et al. in view of Kobayashi et al. and Koshimizu et al. (US Pat. Pub. No. US 2002/0131094 A1)

Kuan et al. discloses an apparatus for reducing a warm-up time of a lamp, comprising: an image sensor module 23; a cold cathode fluorescent lamp 24 provided on one side of the image sensor module 23; and a heating light source 26 provided on the other side of the image sensor module 23 to serve as an auxiliary light source for the cold cathode fluorescent lamp 24 when turned on simultaneously with the cold cathode fluorescent lamp 24 to reduce a start-up time of a scanner 20 (paragraphs [0020] and [0029]; Figure 7).

Kuan et al. differs from the instant claimed invention in not disclosing a light guide device provided on the other side of the image sensor module, the light guide device being provided with a light-emitting device on one side thereof; and the light-emitting device is a light-emitting diode.

Kobayashi et al. discloses a device comprising a cold cathode fluorescent lamp 4; a light-emitting diode (LED) 8 being served as an auxiliary light source for the cold

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cathode fluorescent lamp 4 (abstract and Figure 3); and the LED 8 turned on simultaneously with the cold cathode fluorescent lamp 4 to reduce a start-up time (abstract).

Koshimizu et al. discloses a light guide device (or plate) 19 (paragraphs [0039] and [0040]; Figure 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the light-emitting diode as taught by Kobayashi et al. in place of the auxiliary (heating) light source of Kuan et al. because of the same functionality for reducing the start-up time.

Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the light guide plate as taught by Koshimizu et al. to the auxiliary light source (or LED) of Kuan et al. in view of Kobayashi et al. to obtain a high-efficiency surface illumination (Koshimizu et al., paragraph [0007]).

#### ***Allowable Subject Matter***

7. Claims 1-4 are allowed.
8. Claims 5-8 are allowable over the prior art of record; however, it is found to be objectionable for the reasons specified above.
9. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach or suggest a method for reducing a warm-up time of a lamp comprising the current supplied to the light-emitting device is adjusted based on the luminance of the cold cathode fluorescent lamp so that the light source for

illuminating a surface of a document may be kept stable as set forth in the claimed combination.

***Other Prior Art***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hu et al. (US Pat. No. 6,104,510) discloses a scanner comprising a single image sensor and a hybrid light source comprising at least one colored LED and at least one colored cold cathode fluorescent lamp.

Yamamoto (US Pat. No. 6,239,884 B1) discloses a scanner comprising a cold cathode tube and a light source for detection connected to a pre-heater.

Koshimizu et al. (US Pat. Pub. No. US 2003/0174371 A1) discloses a scanner comprising a fluorescent lamp and a dust/scratch detection LED.

Kuan et al. (US Pat. Pub. No. US 2004/0233482 A1) discloses a scanner comprising a cold cathode fluorescent lamp; a light emitting diode; and a control device for controlling operations of the scanner.


***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sophia S. Chen whose telephone number is (571) 272-2133. The examiner can normally be reached on M-F (7:00-3:00) First Friday Off.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sophia S. Chen  
Primary Examiner  
Art Unit 2852

Ssc  
November 30, 2005